

New York State Severe Weather Awareness Week May 3rd to May 9th, 2009

Flash Flooding and River Flooding

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Flooding

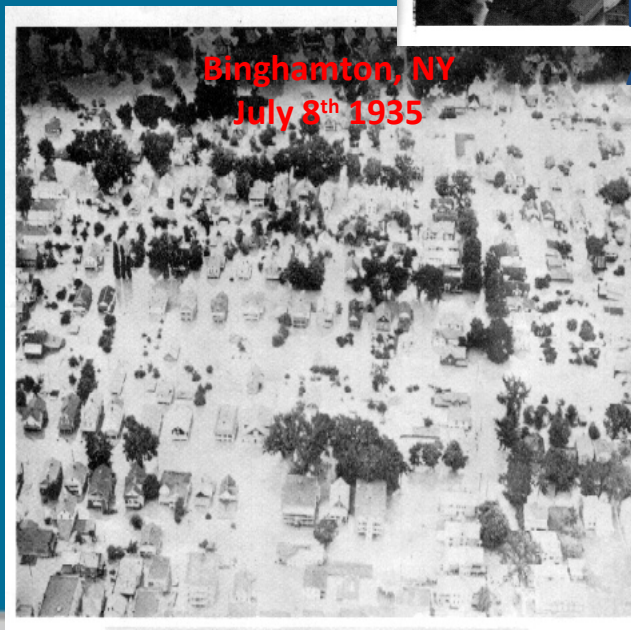
- All parts of the state have been hit with flash flooding and river flooding.
- Some have been statewide floods
 - July 1935
 - Agnes – 1972
 - Jan 1996 snowmelt flood
 - Ivan – 2004
 - June 2006
 - Many other tropical storms.



Elmira NY after

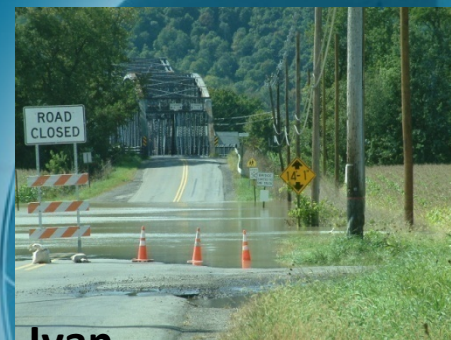
An airview of a portion of Elmira's Southside, June 22, 1972

Agnes



Binghamton, NY

July 8th 1935



Ivan,
September
2004

Types of Flooding

- **Urban Flooding** - Takes less rainfall to cause flooding. Causes ponding of water on roads and low-lying areas.
- **Flash Flooding** - Flooding on small streams. Responds in less than 6 hours.
- **River Flooding** - Flooding on larger rivers and streams. Responds in greater than 6 hours.

Slow-Moving Thunderstorms often
produce flash floods
(mainly in summer)



A diagram illustrating the process of a flash flood. A green hill is shown at the bottom. A large, white, pixelated storm cloud is positioned above the hill, with blue diagonal lines representing rain falling from its base. Two red arrows point upwards from the base of the hill towards the storm cloud. The background is a solid blue color with a faint, stylized globe visible on the right side.

Sun heats up the hills first.

Air rises up the hills and triggers storms.

Weak winds aloft allow storm to remain on the hill.

Steeper terrain the larger the flash flood threat!

Delaware County Flash Flood

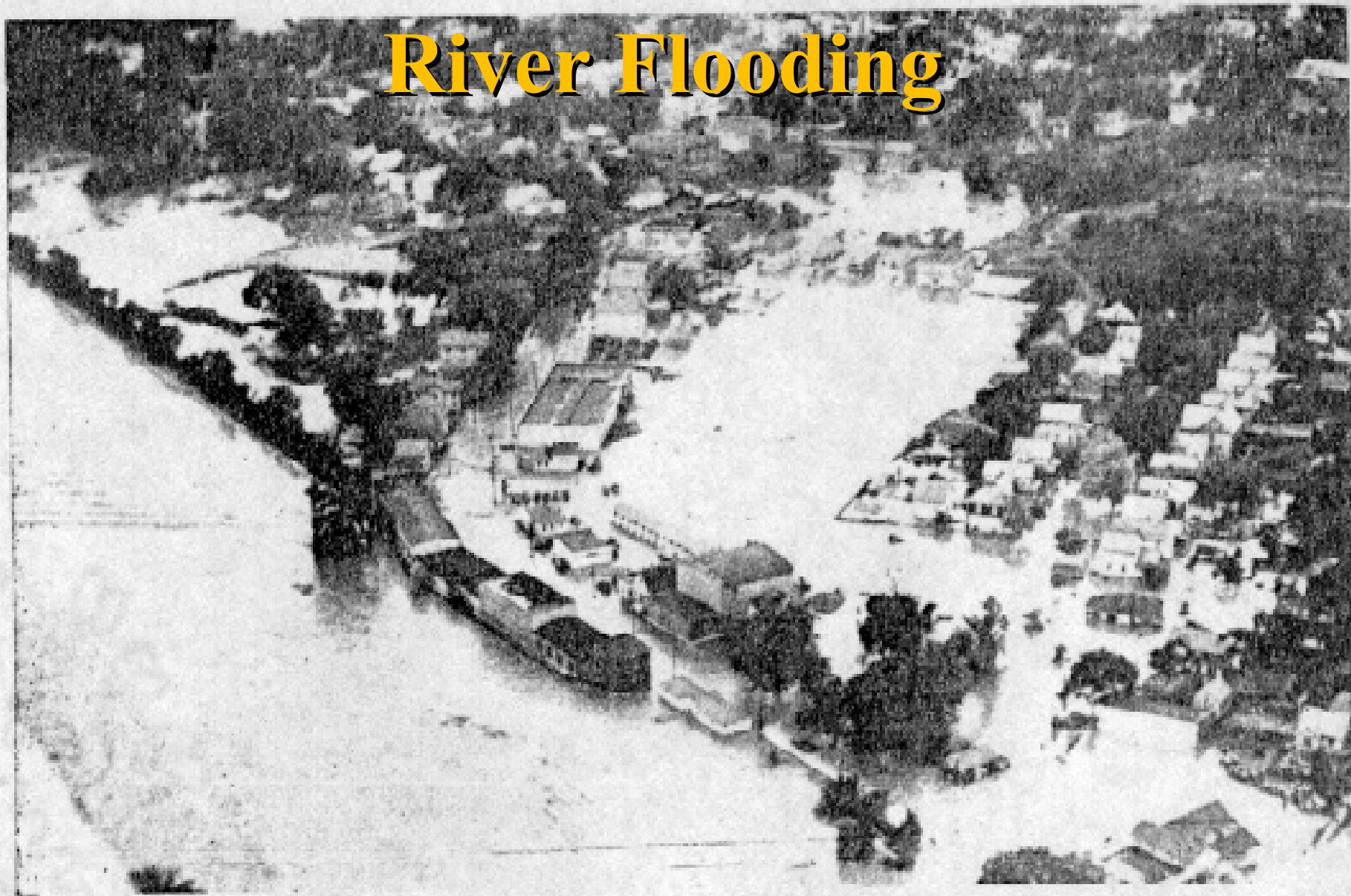
June 19th, 2007

- 4 dead.
- At least 10 million dollars damage.
- Route 206 destroyed between Roscoe and Downsville
- 4 homes completely washed away.
- 37 severely damaged or destroyed.
- Up to 11 inches rain fell in about 3 hours.



Photo by Dave Morford National Weather Binghamton, NY June 22, 2007

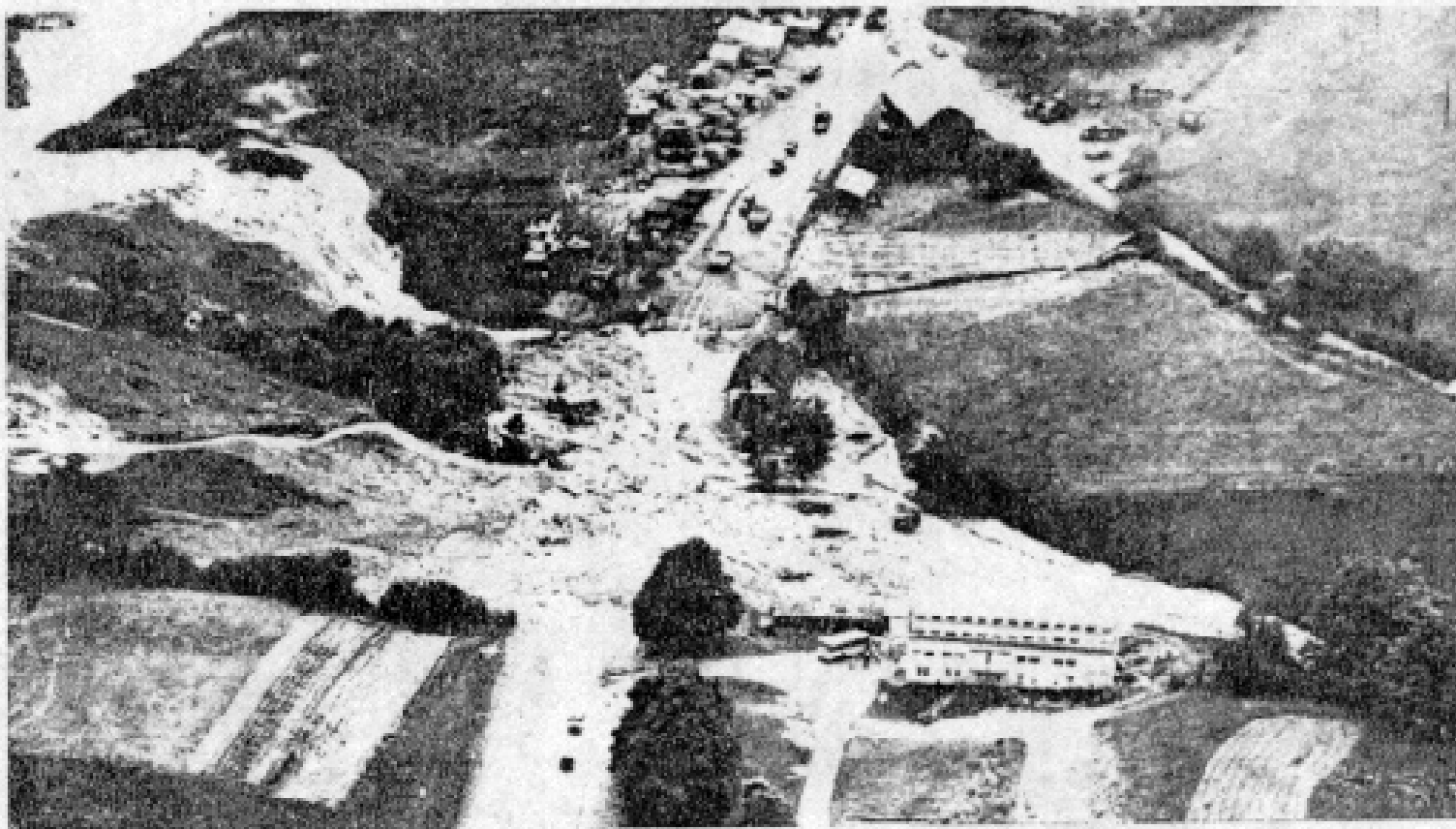
River Flooding



Chenango River and Front Street, Binghamton, N. Y.
Water backing in through Valley Street and into the First Ward

July 1935

1935 River Flooding



Wild rushing waters played havoc with the Cortland-Marathon road

Hornell New York June 1972



The Canisteo River wall kept the river out but trapped runoff from Tobes Hill along Hornell's Dennis Ave.

Tioga County, April 2005



Main Street, Village of Owego

June 2006 Flood



Charles McElwee, Broome SWCD

- 9 dead in central NY and northeast PA.
- Up to 1 billion dollars damage.
- State of Emergencies in many counties.
- Record flooding on the Susquehanna River in New York State.



Taken by Michael R. Head in Binghamton, NY.

The Record Flood of June 2006

Flooding along the North Branch of the Susquehanna River
(red denotes new record)

RIVER	GAGE	JUNE 06 CREST	RECORD	APR '05	IVAN -04
CHENANGO	SHERBURNE	11.35	11.2 (1914)	10.78	N/A
CHENANGO	GREENE	21.16	22.0 (1935)	18.67	N/A
SUSQUEHANNA	UNADILLA	17.73	16.6 (1936)	13.67	N/A
SUSQUEHANNA	BAINBRIDGE	27.03	23.1 (1914)	20.47	15.09
SUSQUEHANNA	CONKLIN	25.02	20.83 (1948)	18.08	19.01
SUSQUEHANNA	VESTAL	33.50	30.5 (1936)	28.87	25.98
SUSQUEHANNA	WAVERLY	22.52	21.4 (1936)	20.88	18.80
SUSQUEHANNA	TOWANDA	20.83	33.43 (1972)	23.05	22.27
SUSQUEHANNA	MESHOPPEN	32.78	43.51 (1972)	34.06	35.27
SUSQUEHANNA	WILKES-BARRE	34.09	40.91 (1972)	30.94	34.96

WATCH vs. WARNING

CAUTION

Watch the Sky

Watch- “Stand-by”

Conditions are favorable for severe weather in or near the watch area. Watches are issued for tornadoes, severe thunderstorms and flash floods. Issued by the Storm Prediction Center

DANGER

Take Cover Now

Warning- “Activated”

The severe weather event is imminent or occurring in the warned area. Warnings are issued for tornadoes, severe thunderstorms, flash floods and river flooding. Issued by NWS Binghamton for central New York and northeast Pennsylvania.